

REMARKS

Applicants thank the Examiner for withdrawing the rejections of record in the August 8, 2003 Office Action.

Status of the Application

Claims 2-5, 7 and 8 are all the claims pending in the Application, as claim 8 (which is identical to claim 1 cancelled in the June 13, 2003 Amendment) is hereby added, and as claim 6 is hereby cancelled without prejudice or disclaimer. Claims 4, 6 and 7 have been rejected.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 2, 3 and 5 are allowed.

Specification Objection

The Examiner has objected to the Specification as including minor informalities. The informalities noted by the Examiner have been corrected. Thus, withdrawal of this objection is respectfully requested.

35 U.S.C. § 112 Rejection

The Examiner has rejected claims 4, 6 and 7 under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. The informalities noted by the Examiner have been corrected. Thus, withdrawal of this rejection is respectfully requested.

New Claims

Claim 8 is hereby added. Claim 8 is identical to claim 1 cancelled in the June 13, 2003 Amendment, and is thus fully supported by the instant specification.

The features of claim 8 (as recited in cancelled claim 1) were rejected by the Examiner in the February 21, 2003 Office Action under 35 U.S.C. § 102(b) as being anticipated by *Fukuyo et al.* (EP 0818805 A2; hereinafter “*Fukuyo*”).

However, this rejection was improper, as the Examiner’s position regarding this reference is unsupported. The Examiner asserts that “regarding the limitation of the average roughness of the surface of each of the tungsten electrodes in contact with the pinch seal portion is 3 μm or smaller, the Examiner takes the position that the average roughness can be as small as null” (*see* February 21, 2003 Office Action, pg. 2).

Instead, although *Fukuyo* discloses tungsten electrode rods 6, *Fukuyo* is completely silent regarding any average roughness of any surface of these electrodes. Thus, as there is no teaching or suggestion of any specific average surface roughness of tungsten electrodes 6, the Examiner must show that an average surface roughness falling within the claimed range is inherent to the device disclosed in *Fukuyo*.

However, to “establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (Emphasis added).

Here, Applicants respectfully submit that it is simply not true that the average surface roughness of tungsten electrodes 6 is necessarily zero. In fact, the surface roughness could be any value.

Further, the instant Application indicates that prior art arc tubes do not have electrodes that have an average surface roughness of 3 μm or smaller, which results in the retention of large compressive stress and leaks. (See Application, page 2, lines 3-12). The Examiner has failed to explain why *Fukuyo* would be any different from such prior art.

Thus, Applicants respectfully submit that independent claim 8 is patentable over *Fukuyo*, and that dependent claim 4 is patentable, at least by virtue of that dependency.


Conclusion

In view of the foregoing, it is respectfully submitted that claims 2-5, 7 and 8 are allowable. Thus, it is respectfully submitted that the application now is in condition for allowance with all of the claims 2-5, 7 and 8.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Please charge any fees which may be required to maintain the pendency of this application, except for the Issue Fee, to our Deposit Account No. 19-4880.

Respectfully submitted,



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